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Baldwin

Harmony simplified

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Harmony simplified

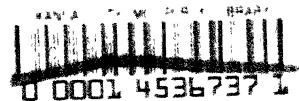
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BOOK I

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## Foreword

The course in harmony presented in this book is designed to satisfy an urgent need by placing in the hands of teachers and students a practical and concise treatise on the science of harmony. It has been the aim of the authors to eliminate all unnecessary details, yet at the same time to cover all essential points for a practical understanding of the subject. As preparation for this course the student should have a good foundation in elementary theory.

It is the contention of the authors that the ability to recognize chords through hearing and the development of the power to play chord progressions on the piano is of more practical value to the student than the methodical harmonization of a melody on paper. The three phases of harmony, that is, ear training, keyboard practice and harmonization of melodies should be developed simultaneously.

The subject matter of each lesson should be taught by the teacher before the student makes reference to the subject matter in the book. The student should be led to formulate each rule by deduction from instances furnished by the teacher.

THE AUTHORS

# BOOK I

## Chapter I

### INTERVALS

An INTERVAL is the measurement of the distance between two notes or tones.

An interval has two names, a NUMBER name and a SPECIFIC name.

To determine the number name consider the lower note 1 or "DO" and count upwards to the higher note. (Example 1)

Ex. 1

Intervals larger than an 8th may be named as if the notes were within an octave.

To determine the specific name consider the lower note 1 of the key. If the upper note is found in the major scale of the lower note it is either a MAJOR or a PERFECT interval.

If it is a 1st, 4th, 5th, or 8th, it is a PERFECT interval. (Marked P.) (Ex. 2)

Ex. 2

Note 1 - Not a P. 4th because in the major scale of F, B is flattened

Note 2 - Not a P. 5th because in the major scale of B, F is sharped

If it is a 2nd, 3rd, 6th or 7th it is a MAJOR interval. (Marked Ma.) (Ex. 3)

Ex. 3

Note 3 - Not a Ma. 2nd because in the major scale of B, C is sharped

Note 4 - Not a Ma. 3rd because in the major scale of A, C is sharped

Note 5 - Not a Ma. 6th because in the major scale of E, C is sharped

Note 6 - Not a Ma. 7th because in the major scale of G, F is sharped

A CHROMATIC half step is from B to B $\sharp$ , or from A to A $\sharp$ .

A DIATONIC half step is from B to C or from A to B $\flat$ .

The intervals B-B $\sharp$  and B - C are ENHARMONIC. Likewise A - A $\sharp$  and A - B $\flat$ .

A perfect interval extended by a CHROMATIC half step is an AUGMENTED interval. (Marked A.) (Ex. 4a).

A perfect interval contracted by a chromatic half step is a DIMINISHED interval. (Marked D.) (Ex. 4b).

#### Ex. 4

Ex. 4 consists of two musical examples, (a) and (b), each on a single staff in G clef. The staff is divided into eight measures by vertical bar lines. The notes are represented by open circles with stems.

Example (a) illustrates augmented intervals. The notes are: P. 4 (open circle), A. 4 (open circle with a sharp sign), P. 5 (open circle), A. 5 (open circle with a sharp sign), P. 1 (open circle), A. 1 (open circle with a sharp sign), P. 8 (open circle), and A. 8 (open circle with a sharp sign). The interval between the 4th and 5th notes is a chromatic half step, and the interval between the 5th and 6th notes is another chromatic half step, resulting in an augmented second (a major second extended by a chromatic half step).

Example (b) illustrates diminished intervals. The notes are: P. 4 (open circle), D. 4 (open circle with a sharp sign), P. 5 (open circle), D. 5 (open circle with a sharp sign), P. 1 (open circle), D. 1 (open circle with a sharp sign), P. 8 (open circle), and D. 8 (open circle with a sharp sign). The interval between the 4th and 5th notes is a chromatic half step, and the interval between the 5th and 6th notes is another chromatic half step, resulting in a diminished second (a major second contracted by a chromatic half step).

Note: A Diminished Prime (1st) is impractical.

A Major interval extended by a chromatic half step is an AUGMENTED interval. (Ex. 5a).

A major interval contracted by a chromatic half step is a MINOR interval (Marked Mi.) (Ex. 5b).

A major interval contracted by two chromatic half steps is a DIMINISHED interval. (Ex. 5c).

#### Ex. 5

Ex. 5 consists of three musical examples, (a), (b), and (c), each on a single staff in G clef. The staff is divided into eight measures by vertical bar lines. The notes are represented by open circles with stems.

Example (a) illustrates doubly augmented intervals. The notes are: Ma. 2 (open circle), A. 2 (open circle with a sharp sign), Ma. 3 (open circle with a sharp sign), A. 3 (open circle with a sharp sign), Ma. 6 (open circle), A. 6 (open circle with a sharp sign), Ma. 7 (open circle), and A. 7 (open circle with a sharp sign). The interval between the 2nd and 3rd notes is a chromatic half step, and the interval between the 3rd and 6th notes is another chromatic half step, resulting in a doubly augmented second (a major second extended by two chromatic half steps).

Example (b) illustrates doubly diminished intervals. The notes are: Ma. 2 (open circle with a sharp sign), Mi. 2 (open circle with a sharp sign), Ma. 3 (open circle with a sharp sign), Mi. 3 (open circle with a sharp sign), Ma. 6 (open circle), Mi. 6 (open circle), Ma. 7 (open circle), and Mi. 7 (open circle with a sharp sign). The interval between the 2nd and 3rd notes is a chromatic half step, and the interval between the 3rd and 6th notes is another chromatic half step, resulting in a doubly diminished second (a major second contracted by two chromatic half steps).

Example (c) illustrates doubly diminished intervals. The notes are: Ma. 2 (open circle with a sharp sign), D. 2 (open circle with a sharp sign), Ma. 3 (open circle with a sharp sign), D. 3 (open circle with a sharp sign), Ma. 6 (open circle), D. 6 (open circle with a sharp sign), Ma. 7 (open circle), and D. 7 (open circle with a sharp sign). The interval between the 2nd and 3rd notes is a chromatic half step, and the interval between the 3rd and 6th notes is another chromatic half step, resulting in a doubly diminished second (a major second contracted by two chromatic half steps).

Theoretically, there may be intervals more extended than augmented, more contracted than diminished. These are named DOUBLY AUGMENTED and DOUBLY DIMINISHED. (Ex. 6).

#### Ex. 6

Ex. 6 shows a single staff in G clef with four measures. The notes are: Doubly A. 5 (open circle with a sharp sign), Doubly D. 4 (open circle with a sharp sign), Doubly D. 7 (open circle with a sharp sign), and Doubly A. 2 (open circle with a sharp sign). The interval between the 5th and 6th notes is a chromatic half step, and the interval between the 6th and 7th notes is another chromatic half step, resulting in a doubly augmented second (a major second extended by two chromatic half steps). The interval between the 4th and 5th notes is a chromatic half step, and the interval between the 5th and 6th notes is another chromatic half step, resulting in a doubly diminished second (a major second contracted by two chromatic half steps).

## Exercises

1. Identify the following intervals:



2. Identify the following intervals:



3. Above E on the treble staff construct the following intervals:

D. 4: A. 5: Mi. 6: D. 7: A. 2: D. 3: A. 8: D. 5: A. 3: Ma. 2:

4. Above A-flat on the bass staff construct the following intervals:

D. 8: Mi. 3: A. 6: D. 2: Mi. 7: A. 4: D. 6: Mi. 2: A. 7: P. 4:

5. Name the interval from each note to the one following.

There are thirteen items.



6. Name the interval from each note to the one following.

There are seven items.



7. Invert the intervals given in exercise 1 and identify them.

(The interval G-flat - D, inverted, becomes D - G-flat).



8. Invert the intervals given in exercise 2 and identify them.

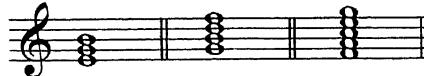
## Chapter II

### CHORDS

The student should develop the power to PLAY at the keyboard, to RECOGNIZE by hearing and to WRITE each example in the following chapters. The ability to play these examples and to recognize them when played is of more importance than the ability to harmonize melodies on paper.

A CHORD is a group of three or more notes erected in thirds upon a given note called the ROOT. (Ex. 7).

Ex. 7



For the present only three-tone chords, called TRIADS, will be used.

A TRIAD consists of a ROOT, a THIRD and a FIFTH, figured above the root.

Determine the roots of the following triads: A D F; B G E; C A F; D G B; etc.

Triads may be erected upon the notes of the major scale as follows. (Ex. 8).

Ex. 8



The root of the chord is indicated always by the Roman numeral. Hence, the Roman numeral indicates the scale note used as the chord root.

Upon analysis it will be found that the I, the IV and the V consist of a Ma. 3d and a P. 5th and are therefore called MAJOR TRIADS.

The II, III and VI consist of a Mi. 3d and a P. 5th and are therefore called MINOR TRIADS.

The VII consists of a Mi. 3d and a D. 5th and is called a DIMINISHED TRIAD.

The I, IV and V are the PRINCIPAL triads. The others are the SECONDARY triads.

For the present only the PRINCIPAL triads are to be used.

### Exercises

1. Write the principal triads on the treble staff in the keys of E<sub>b</sub>, F<sup>#</sup> and A<sub>b</sub>.
2. Rewrite these so that the root is in the upper voice.
3. On the bass staff rewrite these so that the root is in the middle voice.
4. Each of the following notes is the fifth of a I triad. Prefixing in each case the key signature, write the principal triads in each key, roots in the lowest voice.



## Chapter III

7

### HARMONIZATION OF MELODIES IN MAJOR KEYS

The I consists of the 1, 3 and 5 of the scale

The IV consists of the 4, 6 and 8 of the scale.

The V consists of the 5, 7 and 2 of the scale.

#### Ex. 9



When harmonizing a melody proceed as follows:

#### A- CHOICE OF CHORD:

1. Above each melody note write its corresponding scale number. (Ex. 10)
2. Below each melody note and under the bass staff indicate by Roman numeral the Principal chord in which the melody note is found. (Ex. 10).

#### Ex. 10

A musical staff in G major (one sharp) with a common time signature. Above the staff, the numbers 1 through 8 are placed above the corresponding melody notes. Below the staff, Roman numerals indicate the chords: I, V, I, IV, V, IV, V, I. Under the bass staff, the Roman numerals are repeated with 'or' and 'IV' written below 'I' and 'V' respectively, indicating a choice of chords.

Under 1 (8) and 5 there is a choice of chord, but none elsewhere.

For the present, always begin and end a melody with the I chord.

Hence the choice of chords for Example 10 will now read:

I - V - I - IV - I - IV - V - I  
(Under 5 the I chord is more musical than the V).

#### B- CHORD ARRANGEMENT:

- a - Fill in the bass notes for the entire exercise using the roots of the chords only in the bass.

For convenience in reading and uniformity:

1. Write the soprano and alto notes on the treble staff. (Ex. 11).
2. Write the tenor and bass notes on the bass staff. (Ex. 11).
3. The stems of the soprano and the tenor notes should be at the right of the note heads and upwards. (Ex. 11).
4. The stems of the alto and bass notes should be at the left and downwards. (Ex. 11).

#### Ex. 11



The usual compass of the four voices is as follows:

### Ex. 12

Exercise 10 will then appear as follows:

### Ex. 13

A musical staff in G clef and common time. The top staff (treble clef) has measures 1-8, each containing a single note. The bottom staff (bass clef) has measures I-V, each containing a single note. Measures 1, 3, 5, and 7 are on the A line, while 2, 4, 6, and 8 are on the D line. Measures I, III, and V are on the A line, while II, IV, and VI are on the D line.

When harmonizing a melody for four voices using triads, one of the notes must be used twice, that is, DOUBLED.

Play a major triad on the piano. Make it a four tone chord by

1. Doubling the third of the chord.
2. Doubling the fifth of the chord.
3. Doubling the root of the chord.

It will be noticed that doubling the third of the chord makes the chord sound thick or muddy. Therefore AVOID DOUBLING THE THIRD OF A MAJOR TRIAD. Double either the root or fifth.

Play a major triad on the piano. Make it a four tone chord. Then

1. Omit the third of the chord.
2. Omit the fifth of the chord.
3. Omit the root of the chord.

When the third of the chord is omitted it sounds hollow. When the root of the chord is omitted it loses its major effect. Therefore, THE FIFTH OF THE CHORD ONLY MAY BE OMITTED, in which case the root will be used three times.

b - Fill in the inner voices, that is, the alto and tenor parts.

1. Do not write the tenor and alto parts or the soprano and alto parts more than an octave apart.
2. Avoid writing the tenor and bass parts a third apart lower than G and E, fourth and third spaces, respectively, on the bass staff.

## C - CHORD PROGRESSION:

1. In progressing from one chord to the next one, the inner voices should move as smoothly as possible, common notes being retained in the same part when possible. (Ex. 14)

Ex. 14

Voces moving in the same direction are in PARALLEL MOTION. (Ex. 14, first measure, Soprano and Alto voices).

Voces moving in opposite direction are in CONTRARY MOTION. (Ex. 14, first measure, Soprano and Bass).

2. When possible the bass voice should move in CONTRARY MOTION to the Soprano voice

3. In simple part-writing avoid consecutive parallel perfect 5ths between the same two voices because such progressions produce the effect of a single melody sung by two voices in two different keys. (Ex. 15.)

Ex. 15

4. Avoid consecutive parallel perfect 8ths between the same two voices because when two voices sing the same tones consecutively three part harmony results. Four part harmony is richer.

5. In simple part-writing avoid the skip of a seventh in any voice between two different chords, because it is unmusical.

6. Crossed voices occur when a higher voice moves to a note below the preceding lower voice, or when a lower voice moves to a note above the preceding upper voice. (Ex. 16.)

Ex. 16

## RESUMÉ:

When harmonizing a melody proceed as follows:

## A- CHOICE OF CHORD:

1. Above each melody note write its corresponding scale number.
2. Below each melody note and under the bass staff, indicate by Roman numeral the choice of principal chord in which the melody note is found.

## B- CHORD ARRANGEMENT:

1. Write in the bass notes, using roots of the chords only.
2. Write in the inner voices.

## C- CHORD PROGRESSION:

1. Make the inner voices move as smoothly as possible from one chord to the following chord.

## COMMON ERRORS IN ARRANGEMENT AND PROGRESSION.

## Ex. 17

Ex. 17 shows six arrangements (a-f) of a two-chord progression (I-V) for four voices (Soprano, Alto, Tenor, Bass) on a treble and bass staff. Each arrangement is labeled with a letter (a-f) above the staff. The bass staff shows the root notes of the chords. The soprano and alto voices are shown above the bass staff, and the tenor voice is shown below the bass staff.

In Arrangement:

## THIRD OF CHORD OMITTED:

Ex. 17-a. In the second chord the third of the chord, E, is omitted.

## DOUBLED THIRD:

Ex. 17-b. In the second chord the third of the chord, E, is doubled.

Ex. 17-f. Alto and tenor both have E, the third of the chord, but as it occurs on the unison this may be permissible.

## POOR ARRANGEMENT:

Ex. 17-b. Tenor and bass are a third apart low on the bass staff.

Ex. 17-c. Tenor and bass are a third apart low on the bass staff.

Ex. 17-c. Alto and tenor are more than an octave apart, in the second chord.

In Progression:

CROSSED VOICES:

Ex. 17-b. Tenor in the second chord is lower than the bass in the first chord.

Ex. 17-d. Bass in the second chord is higher than the tenor in the preceding chord.

SKIP OF A SEVENTH:

Ex. 17-c. The tenor skips a seventh.

CONSECUTIVE PARALLEL PERFECT FIFTHS:

Ex. 17-e. In the first chord the tenor and bass are a Perfect 5th apart. In the following chord they are also a Perfect 5th apart.

CONSECUTIVE PARALLEL PERFECT OCTAVES:

Ex. 17-f. The soprano and bass parts move from B to C.

Care must be taken in progression IV - V and V - IV, both of which give rise to difficulty of parallel 5ths and octaves. It will be wise to use the following formula: (This formula and those presented in the following chapters correspond in music to idioms in language).

Formula:

Ex. 18

Reverse this formula for the progression V - IV.

The above formula may be reduced to a numerical representation as follows:

Upper voices (see note)	1 - 7
	6 - 5
	4 - 2
Bass	4 - 5
Chords	IV - V

Note: By upper voices is meant, soprano alto or tenor.

## Ex. 19

Ex. 19-a. Contains errors which have been explained under Ex. 17. The place where each error exists is indicated below.

## Errors in Ex. 19-a.

- Chord 2 to 3 - Consecutive Parallel P. octaves.
- Chord 3 - Doubled thirds.
- Chord 4 - Third of chord omitted.
- Chord 4 to 5 - Consecutive Parallel P. 5ths.
- Chord 5 to 6 - Consecutive Parallel P. 5ths.
- Chord 6 - Poor arrangement.
- Chord 7 to 8 - Poor voice leading. See Chapter III-C.
- Chord 8 - Poor arrangement.

Ex. 19-b is one of several good harmonizations for this same melody.

## Exercises:

Harmonize the following exercises for four voices with the roots of the chords in the bass.

The bass as well as the melody is given in the first set of exercises thus indicating the chord choices. The problems of arrangement and progression remain to be solved.

## Exercises

## ACCENTS

In setting poetry to music, three different kinds of accents are involved; first, the poetic, or meter, accent of stressed and unstressed syllables including various rhythms of poetic feet such as trochaic, iambic, anapaestic, etc; second, the rhythmic accent as in  $\frac{2}{4}$ ,  $\frac{3}{4}$ , and  $\frac{4}{4}$  measure; third the harmonic accent produced by the movement from one chord to a different chord. It is obvious that in good music the three kinds of accents must coincide.

## Ex. 20

Ex. 20 consists of four measures of music in common time (indicated by a '4' in a circle) with a key signature of one sharp (F#). The music is divided into measures by vertical bar lines. Below each measure is a Roman numeral indicating the chord: I, IV, I, I, I, I, IV, IV, V, I. Above the staff, the numbers 3, 1, 3, 1 are written above the first measure, and 3, 1, 5, 3 are written above the second measure. The third measure has 5, 3, 1, 4, and the fourth measure has 5, 5.

Ex. 20 - a. On the accented beat change the chord if possible.

- b. When the melody follows the notes of an obvious chord in a measure the same chord may be repeated.
- c. When a melody note skips from an accented to an unaccented beat repeat the same chord if possible.
- d. When a melody note is repeated change the chord if possible.

## Exercises

Exercises 1 through 10 are each composed of two measures of music. Each measure is in common time (indicated by a '4' in a circle). The first measure of each exercise is in a key with one sharp (F#). The second measure of each exercise is in a key with one flat (B-flat). The exercises are numbered 1 through 10 above the first measure of each pair.

## Chapter IV

### CADENCES

A CADENCE is an ending.

Ex. 21.

Ex. 21 shows six examples of cadences (a-f) in G major (two staves, treble and bass). Each example is labeled with a Roman numeral and a note value. Below the examples are labels: V - I, IV - I, V - I, IV - I, I - V, and IV - V - I.

An AUTHENTIC CADENCE is the progression V - I. (Ex. 21 a, c, f.)

A PLAGAL CADENCE is the progression IV - I. (Ex. 21 b, d.)

A CADENCE is PERFECT when the final melodic note is 1 of the key.  
(Ex. 21 c, d, f.)

A CADENCE is IMPERFECT when the final melodic note is other than 1.  
(Ex. 21 a, b.)

A HALF CADENCE or SEMI - CADENCE is the progression I - V.  
(Ex. 21 e.)

An EXTENDED CADENCE is such a progression as IV - V - I or IV - I - V.  
(Ex. 21 f.)

### Exercises

1. In the key of A<sub>b</sub> write a Perfect Plagal cadence for four voices.
2. In the key of F<sub>#</sub> write an Imperfect Authentic cadence.
3. In the key of E write an extended Perfect Authentic cadence.
4. In the key of D<sub>b</sub> write a Half cadence.
5. In the key of A write an Imperfect Plagal cadence.

## Chapter V

### HARMONIZATION OF MELODIES IN MINOR KEYS

Triads may be erected upon the notes of the minor scale as follows:

Ex. 22

Key of e I II III IV V VI VII

Henceforth major keys will be indicated by CAPITAL LETTERS; minor keys by SMALL LETTERS.

The I and the IV are minor triads. Why?

The V and the VI are major triads. Why?

The II and the VII are diminished triads. Why?

The III consists of a major third and an augmented fifth and is called an AUGMENTED TRIAD.

At present only the notes in the HARMONIC MINOR scale and the principal triads I, IV and V will be used.

Ex. 23

c I IV V

The I consists of the the 1, 3, and 5 of the minor scale.

The IV consists of the the 4, 6, and 8 of the minor scale.

The V consists of the the 5, 7, and 2 of the minor scale.

The 7th of the minor scale is chromatically raised a half step.

In harmonizing melodies in minor proceed as for major melodies. Refer to Chapter III for the general rules.

Avoid in any voice the progression 6-#7, an augmented second.

#### Exercises

Harmonize the following minor melodies for four voices.

## Chapter VI

### FIRST INVERSION OF THE PRINCIPAL TRIADS

When the bass note is the third of the chord, the chord is said to be in the FIRST INVERSION. The first inversion is noted by a small figure 1 to the lower right of the chord number.

Ex. 24

1                    4                    5  
D    I<sub>1</sub>    IV<sub>1</sub>    V<sub>1</sub>

In the first inversion chord, any one of the three upper voices (soprano, alto, tenor) may sing 1 or 5 in a I<sub>1</sub>; 4 or 1 in a IV<sub>1</sub>; 2 or 5 in a V<sub>1</sub>. The bass must sing 3 in I<sub>1</sub>; 6 in IV<sub>1</sub>; 7 in V<sub>1</sub>.

The third of the chord, found in the bass, must not be doubled.

Hence the melody notes of the scale may be harmonized as follows:

Melody notes:	1	2	3	4	5	6	7
	I	V	I	IV	V	IV	V
	I <sub>1</sub>	V <sub>1</sub>		IV <sub>1</sub>	V <sub>1</sub>		
	IV				I		
	IV <sub>1</sub>				I <sub>1</sub>		

Notice that under the melody notes 3, 6 and 7 NO FIRST INVERSIONS may be used. Why?

In general:

1. Do not begin or end a melody with an inversion.
2. Inversions are to be used for the purpose of smoother leading of the bass voice.

Ex. 25

a) 4 2 2 4      b) 5 5 5 5 5      c) 2 2 1 1      d) 5 1 6 4      e) 1 5 7 1 1 5 7 5  
IV V<sub>1</sub> V<sub>1</sub> IV      V V V I V V<sub>1</sub>      V<sub>1</sub> V I IV<sub>1</sub>      I I<sub>1</sub> IV IV<sub>1</sub>      I I<sub>1</sub> V V<sub>1</sub> (Poor)

3. Ex. 25-a Avoid the progression IV - V<sub>1</sub> (Bass sings 4 - 7) and vice versa.
4. Ex. 25-b On the accented beat CHANGE the chord if possible or else change the bass note by using an inversion.

(See Chapter III - Accents)

5. Ex. 25 - c On the UNACCENTED beat when the melody note is repeated, change the bass note by using an inversion, or else change the chord.
6. Ex. 25 - d When there is a SKIP in the melody from an ACCENTED beat to an UNACCENTED beat repeat the same chord if possible in a different position.
7. Ex. 25 - e When there is a SKIP in the melody from an UNACCENTED to an ACCENTED beat change the chord if possible. (See 4)
8. Ex 25 - f When a wide skip is necessary in the bass voice it should occur between two arrangements of the SAME chord rather than between two DIFFERENT chords.

### Exercises

Harmonize the following melodies for four voices:

① MAJOR

②

③

④

⑤

⑥ MINOR

⑦

⑧

⑨

⑩

## Chapter VII

### SECOND INVERSION OF THE PRINCIPAL TRIADS

When the bass note is the fifth of the chord, the chord is said to be in the SECOND INVERSION. The second inversion is noted by a small figure 2 to the lower right of the chord number.

Ex. 26

F I<sub>2</sub> IV<sub>2</sub> V<sub>2</sub>      d I<sub>2</sub> IV<sub>2</sub> V<sub>2</sub>

In the second inversion chord any one of the three upper voices (soprano, alto, tenor) may sing 1, 5 or 3 in a I<sub>2</sub>; 4, 6 or 1 in a IV<sub>2</sub>; 5, 7 or 2 in a V<sub>2</sub>. The bass must sing 5 in a I<sub>2</sub>; 1 in a IV<sub>2</sub>; 2 in a V<sub>2</sub>.

Hence the melody notes of the scale may be harmonized as follows:

1	2	3	4	5	6	7
I	V	I	IV	V	IV	V
I <sub>1</sub>	V <sub>1</sub>	I <sub>2</sub>	IV <sub>1</sub>	V <sub>1</sub>	IV <sub>2</sub>	V <sub>2</sub>
I <sub>2</sub>	V <sub>2</sub>		IV <sub>2</sub>	V <sub>2</sub>		
IV				I		
IV <sub>1</sub>				I <sub>1</sub>		
IV <sub>2</sub>				I <sub>2</sub>		

Notice that under the melody notes 3, 6 and 7 only the root position and second inversion may be used. Why?

For the present, USE THE SECOND INVERSION OF THE TRIAD ONLY AS PRESCRIBED BELOW.

1. In cadences, provided the I<sub>2</sub> occurs on the accent.

Ex. 27

A IV I<sub>2</sub> V I      f# IV I<sub>2</sub> V

2. In the following formulas:

Stationary bass on 1:

Ex. 28

I IV<sub>2</sub> I

Upper voices 3 - 4 - 3  
5 - 6 - 5  
1 - 1 - 1 } Inter-  
change-  
able.

Bass 1 - 1 - 1 "

Chords I - IV<sub>2</sub> - I

Stationary bass on 5:

Ex. 29

e V I<sub>2</sub> V

Upper voices 7 - 8 - 7  
2 - 3 - 2  
5 - 5 - 5 Inter-  
change-  
able.

Bass 5 - 5 - 5

Chords V - I<sub>2</sub> - V

Scalewise bass:

Ex. 30

F I V<sub>2</sub> I<sub>1</sub>

Upper voices 3 - 2 - 1  
5 - 5 - 5  
1 - 7 - 1 Inter-  
change-  
able.

Bass 1 - 2 - 3

Chords I - V<sub>2</sub> - I<sub>1</sub>

Ex. 31

d I<sub>1</sub> V<sub>2</sub> I

Upper voices 1 - 2 - 3  
1 - 7 - 1  
5 - 5 - 5 Inter-  
change-  
able.

Bass 3 - 2 - 1

Chords I<sub>1</sub> - V<sub>2</sub> - I

3. When the same chord is repeated on the following beat:

Ex. 32

E I I<sub>2</sub> I I<sub>2</sub>

Notice in every case there is no skip in the bass part either to or from the bass note of a second inversion chord, except in Ex. 32 where the same chord is repeated.

## Exercises

Harmonize the following exercises for four voices.

(1) MAJOR

(2)

(3)

(4)

(5)

(6) MINOR

(7)

(8)

(9)

(10)

## Chapter VIII

### THE DOMINANT SEVENTH CHORD

The four tone chord erected upon V as the root is called the DOMINANT SEVENTH CHORD and is noted by a small figure 7 to the upper right of the chord number.

Ex. 33

The notes comprising it are 5, 7, 2 and 4.

Hence the melody notes of the scale may be harmonized as follows:

1	2	3	4	5	6	7
I	V	I	IV	V	IV	V
IV				I		
	V <sup>7</sup>		V <sup>7</sup>	V <sup>7</sup>		V <sup>7</sup>

(The inversions of the principal triads are omitted here. See Chapter VII.)

Being a four note chord it has three inversions.

Ex. 34

The fifth of the chord, 2, only may be omitted in which case the root, 5, is doubled.

When inverted, it is better not to omit any notes of the chord.

It is a dissonant chord and resolves to the consonant triad I.

In its resolution to the I:

Ex. 35

5 in the soprano voice resolves to 1 or 5

” ” ” inner voices ” ” 1 or 5

” ” ” bass voice ” ” 1

7 in the inner voices resolves to 1 or 5

” ” ” outer ” ” ” 1

2 in the soprano voice resolves to 1 or 5

” ” ” inner voices ” ” 1 or 5

” ” ” bass voice ” ” 1

4 in the any voice ALWAYS resolves to 3.

Hence in its resolution the V<sup>7</sup> resolves to the I

”	”	”	”	V <sup>7</sup>	”	”	”	I
”	”	”	”	V <sup>7</sup>	”	”	”	I
”	”	”	”	V <sup>7</sup>	”	”	”	I <sub>1</sub>

Do not use the progression  $V^7$  -  $V$ . The progression  $V$  -  $V^7$  is good.

In a succession of the  $V^7$  chords the root and inverted positions may be used in any order with the exception that when the  $V_3^7$  is used it must either progress to another  $V^7$  or resolve to a  $I_1$ .

In the melodic progression 2 - 3 the  $V^7$  should not be used under 2. Why?

In the melodic progression 4 - 5 the  $V^7$  should not be used under 4 except as prescribed in the formulas below.

In the melodic progression 4 - 4 - 3 a good choice of chords is  $IV$  -  $V^7$  -  $I$ .

Formulas:

Ex. 36

Upper voices 2 - 5  
5 - 5  
7 - 1

Bass 4 - 3

Chords  $V_3^7$  -  $I_1$  (See note)

Ex. 37

Upper voices 5 - 8  
2 - 1  
7 - 1

Bass 4 - 3

Chords  $V_3^7$  -  $I_1$  (See note)

Note: In both of these formulas, the  $I_1$  should occur on the accent.

Ex. 38

Upper voices 5 - 5 - 5  
1 - 7 - 1  
3 - 4 - 5

Bass 1 - 2 - 3

Chords I  $V_2^7$   $I_1$

In major only

Ex. 39

Upper voices 6 - 7 - 8  
4 - 5 - 5  
1 - 2 - 1

Bass 4 - 4 - 3

Chords IV  $V_3^7$   $I_1$

In major only

Ex. 39a

Upper voices 6 - 7 - 8  
4 - 4 - 3  
1 - 5 - 5

Bass 4 - 2 - 1

Chords IV  $V_2^7$  I

## Exercises

(1) MAJOR

(2)

(3)

(4)

(5)

(6) MINOR

(7)

(8)

(9)

(10)

## Chapter IX

### MODULATION TO THE DOMINANT AND SUBDOMINANT KEYS IN MAJOR

To MODULATE means to change the key or tonality.

A modulation is established by using an authentic cadence in the new key.

The terms DOMINANT and SUBDOMINANT are borrowed from the technical names of the scale tones, all of which follow:

1. The TONIC
2. The SUPERTONIC
3. The MEDIANT
4. The SUBDOMINANT
5. The DOMINANT
6. The SUBMEDIANT or SUPERDOMINANT
7. The LEADING TONE

A DOMINANT modulation moves to the key at the 5th.

A SUBDOMINANT     "     "     "     "     "     "     4th.

The TONICS by the dominant route follow:

#### Ex. 40

MAJOR

C G D A E B F# C#

MINOR

a e b f# c# g# d# a#

The TONICS by the subdominant route follow:

#### Ex. 41

MAJOR

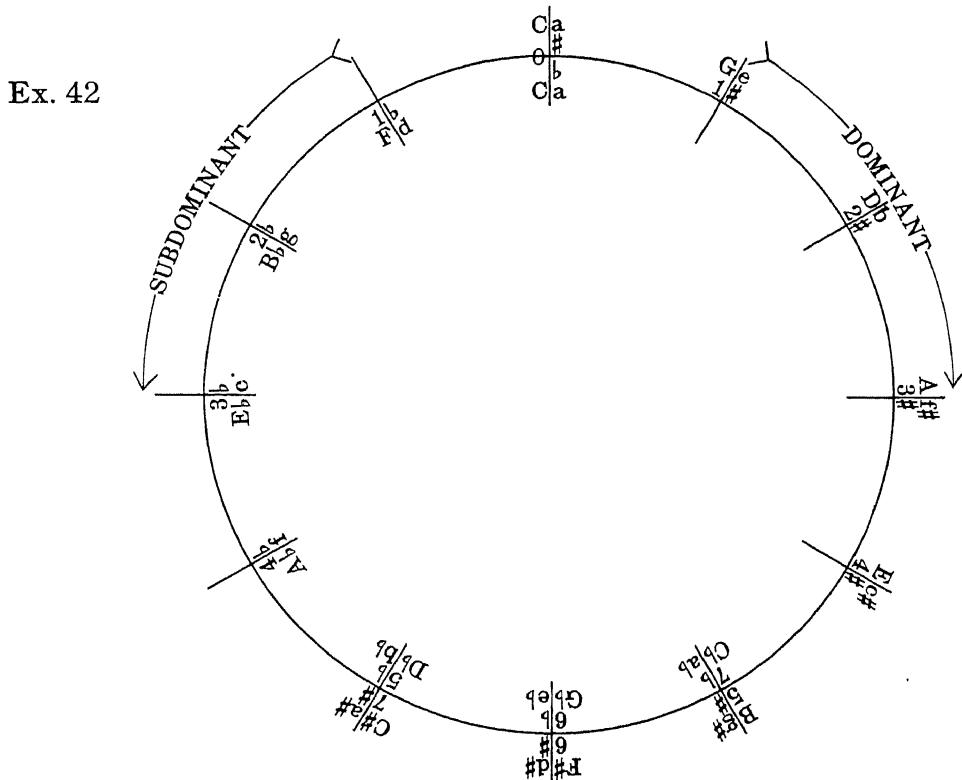
C F B<sub>b</sub> E<sub>b</sub> A<sub>b</sub> D<sub>b</sub> G<sub>b</sub> C<sub>b</sub>

MINOR

a d g c f bb eb ab

The circle of keys shows the relationship of the MAJOR KEYS and the relationship of the MINOR KEYS.

Major keys are noted in capital letters, minor keys in small letters.



There are two methods of modulating, as follows:

## 1. Modulating by a BRIDGE CHORD, a chord common to two keys.



Ex. 43 - a. The I in F is found as IV in C, the dominant key.

” ” ” ” ” ” ” V ” B<sub>b</sub>, the subdominant key.

Ex. 43 - b. The IV in F is found as I in B $\flat$ , the subdominant key.

Ex. 43 - c. The V in F is found as I in C, the dominant key.

Hence:

The I in any major key is found as the IV in the dominant key.

" V " " " " " " " " I " " dominant key.

" I " " " " " " " " " " V " " " subdominant key.

" IV " " " " " " " I " " subdominant key.

## Ex. 44

a) 3 5 4 3 6 5 2 1

b) 5 4 3 4 1 1 7 1

Ex. 44 - a. Sing the melody. You will hear that a modulation begins on the fourth note into the key of C, the dominant of F. The fourth note also seems to be in the original key. The melody number of this note is 3, and will therefore be harmonized by the I in F. By referring to the above chart it will be seen that this chord is a BRIDGE CHORD.

Ex. 44 - b. Sing the melody. The melody ends in the key of B<sub>b</sub> the subdominant. The fourth chord again sounds like a BRIDGE CHORD. In F its melody number is 4. If it is harmonized by the IV it becomes the I in B<sub>b</sub>, the subdominant key.

2. Modulating by a V<sup>7</sup> CHORD in the new key.

## Ex. 45

a) 3 5 7 1

b) 3 5 4 3

Ex. 45 - a. The chromatic sign indicates a modulation. What closely related key to G has a C sharp in the signature?

Ex. 45 - b. What closely related key to G has F natural in it?

Resumé:

When a modulation is desired.

1. Decide where the new tonality begins.
2. Write the melodic numbers over the melody in the new key.
3. Proceed as for the usual melodic harmonization
4. Prefix the necessary chromatic signs.

Exercises: To be sung changing melodic numbers. Determine where the modulation begins and to what key the modulation is made.

## Exercises

① MAJOR

②

③

④

⑤

⑥

⑦ MINOR

⑧

⑨

⑩

⑪

Harmonize for four voices.

①

②

③

④

## CROSS RELATION:

A modulation may be made without a bridge chord provided that any chromatic progression between two chords is continued in the same voice.

## Ex. 46

a) 3 6 7 1      b) 3 5 4 3      c) 3 2 7 1      3 5 4 3

G I IV  
D V<sup>7</sup> I  
(Poor)

G I V<sub>1</sub>  
C V<sup>7</sup> I  
(Poor)

G I D V<sup>7</sup> V<sub>2</sub>  
I

G I I<sub>1</sub>  
C V<sup>7</sup> I

Ex. 46 - a. The bass and tenor in the second chord sing C natural, while the soprano in the third chord sings C sharp.

Ex. 46 - b. The bass in the second chord sings F sharp, while the soprano in the third chord sings F natural.

Ex. 46 - c. Both CROSS RELATIONS are corrected.

Hence: A cross relation exists between two chords where there is a chromatic progression beginning in one voice and ending in another.

Teachers, if they so desire, may continue at this time, the subdominant and dominant modulation procedures explained in Chapter XII.

## Chapter X

### SECONDARY TRIADS

The SECONDARY TRIADS are the II, III, VI and VII.

Analyze the following triads:

## Ex. 47

G II      III      VI      VII      e II      III      VI      VII

**Summary:**

In major keys the major triads are I, IV, V.  
 " " " minor " " II, III, VI.  
 " " " diminished triad is VII.  
 " minor " " major triads are V and VI.  
 " " " minor " " I " IV.  
 " " " diminished triads are II and VII.  
 " " " augmented triad is III.

The melody notes of the scale may be harmonized as follows:

1	2	3	4	5	6	7
I	V	I	IV	V	IV	V
IV	V <sup>7</sup>	III	V <sup>7</sup>	I	II	V <sup>7</sup>
VI	II	VI	II	V <sup>7</sup>	VI	III
				III		

Hence: The secondary triad may be used in place of the principal triad provided the note to be harmonized is in such triad, as follows:

1. The VI may be substituted for the I, except at the beginning and ending of a melody.
2. The II may be substituted for the IV.
3. The III may be substituted for the V. (Rarely used.)

For the present avoid the use of the VII.

ANY NOTE in the secondary triad may be doubled.

Avoid the second inversion of the secondary triads.

The secondary triad may follow its principal triad, but should not precede it.

The II and III may be used effectively in cadences.

**Formulas:**

Melody	4 - 3 - 2 - 1	4 - 3 - 2 - 1
Bass	2 - 5 - 5 - 1 or 4	4 - 5 - 5 - 1
Chords	II - I <sub>2</sub> - V <sup>7</sup> - I or II <sub>1</sub>	IV - III <sub>1</sub> - V <sup>7</sup> - I

Notice in the progression II - I<sub>2</sub> the bass part skips to the bass note of a second inversion. This is permissible especially in a cadence.

	Formula:
Melody (in major only)	8 - 7 - 6
Bass	1 - 3 - 4
Chords	I - III - IV

Ex. 48

The secondary triads may be used in succession as follows:

Ex. 49

Notice that the bass moves either down a P. 5th or up a P. 4th.

#### DECEPTIVE CADENCE:

Ex. 50

Upper voices	4 - 3
	2 - 1
	7 - 1
Bass	5 - 6
Chords	V7 - VI

It is called DECEPTIVE because the bass, 5, resolves to 6 instead of to 1. Do NOT invert these chords.

Avoid a deceptive cadence with the melody, 2 - 3. Why?

#### Resumé:

Hence

1. The progression from a principal triad to its related minor is always good. (See P. 29, 1 - 2 - 3).
2. The following progressions are strong.  
III - VI      VI - II      II - V
3. In progressions of chords on adjacent degrees the upper voices should move in contrary motion to the bass if such chords are in root position. In the DECEPTIVE CADENCE it is often necessary to double the third of the VI chord especially in minor.

## Exercises

① MAJOR

②

③

④

⑤

⑥ MINOR

⑦

⑧

⑨

⑩









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